CLAIMS

What is claimed is:

1. A video decoder (200) for receiving compressed stream data and providing decompressed video output, the decoder comprising:

a demultiplexor (210) for receiving the compressed stream data and separating the normal stream and the channel change stream;

a normal decoding portion (212) in signal communication with the demultiplexor for selectably receiving at least one of the compressed normal and channel change streams, and providing decompressed video output; and

at least one normal frame store in signal communication with the normal decoding portion for storing reference pictures.

2. A video decoder as defined in Claim 1, further comprising:

a lower-resolution decoding portion (618) in signal communication with the demultiplexor for receiving the compressed channel change stream;

at least one channel change frame store (620) in signal communication with the lower-resolution decoding portion for storing reference pictures;

an upsampling unit (622) in signal communication with the lower-resolution decoding portion for upsampling decompressed video data and selectably outputting said data to at least one of the at least one normal frame store and a display.

3. A video decoder as defined in Claim 1, further comprising a postprocessing filter (716) in signal communication with the normal decoding portion for postprocessing decompressed video data and selectably outputting said data to at least one of the at least one normal frame store and a display.

4. A video decoder as defined in Claim 1, further comprising means for selecting a compressed picture to decode from one of a normal stream and a channel change stream.

5. A video decoder as defined in Claim 4, further comprising means for upsampling lower resolution channel change stream pictures.

6. A video decoder as defined in Claim 1, further comprising means for decoding redundant picture syntax in compliance with the ITU-T H.264 [also ISO/IEC MPEG 14496-10?] standard.

7. A video decoder as defined in Claim 1, further comprising means for decoding channel change pictures from user data of corresponding normal stream pictures.

8. A video decoder as defined in Claim 1, further comprising means for responding to a signal from an encoder indicating whether to use normal stream or channel change stream pictures for subsequent channel change stream intra-coded pictures.

9. A video decoder as defined in Claim 4, further comprising means for postprocessing the output of the normal decoder to reduce the abruptness of a transition from lower-quality to normal quality output.

10. A video decoding method (900) for receiving compressed stream data and providing decompressed video output, the method comprising:

receiving the compressed stream data (912) and separating the normal stream and the channel change stream (914);

receiving at least one of the compressed normal and channel change streams, and providing decompressed video output (916); and

storing reference pictures for use in decoding inter-coded pictures (918).

11. A video decoding method as defined in Claim 10, further comprising at least one of:

selecting a compressed picture to decode from one of a normal stream and a channel change stream;

upsampling lower resolution channel change stream pictures;

decoding redundant picture syntax in compliance with the JVT standard;

decoding channel change pictures from user data of corresponding normal stream pictures;

responding to a signal from an encoder indicating whether to use normal stream or channel change stream pictures for subsequent channel change stream intra-coded pictures; and

postprocessing the output of the normal decoder to reduce the abruptness of a transition from lower-quality to normal quality output.

12. A compressed digital video signal comprising:

a first plurality of block transform coefficients corresponding to a normal video quality stream; and

a second plurality of block transform coefficients corresponding to a channel change stream.